

A NEW SPECIES OF *STIXIS* LOUR. (CAPPARACEAE) FROM MANIPUR<sup>1</sup>D.B. DEB AND R.C. ROUT<sup>2</sup>

(With a text-figure)

A new species *Stixis manipurensis* (Capparaceae) recently collected from Manipur State is described and illustrated.

## INTRODUCTION

Deb explored the flora of Manipur State during 1951-1955 (vide *Bull. Bot. Surv. India* 3: 115-133 & 253-350, 1963). His manuscript on Pteridophytes was unfortunately lost and could not be published. Subsequently he conducted field studies for brief periods in 1978, 1982 and recently in July 1987 in different parts of the state with a view to note the extent of changes in the vegetation during the last three decades or so, and for further addition to the Flora.

In July 1987, he went up to the Burma border and saw frequently along the National Highway from Tengnoupou to Morey a tall climber mostly in fruit. He took it for *Stixis suaveolens*, but on examination in herb. CAL it turned out to be a new species.

The genus *Stixis* Lour. (Capparaceae) known in the Indian Floras under the name *Roydsia* Roxb. has been recently studied by Jacob (vide *Blumea* 12:5-12, 1963) treating *S. suaveolens* (Roxb.) Pierre as the type. The genus is represented by seven species distributed in Nepal, Bhutan, Eastern India, South China, Burma, Vietnam, Indochina, Hainan and Western Malaysia.

*Stixis manipurensis* sp. nov. (Fig. 1)

Differt a *S. suaveolens* foliis parvioribus et angustioribus, sepalis ovatis, androgynophoris gynophorisque brevissimum inter alia; a *S. scandens* bracteis ellipticis, sepalis ovatis, staminibus numero majoribus, gynophoris brevioribus, glabris inter alia; a *S. ovata* bracteis brevioribus, sepalis ovatis, androgynophoris gynophorisque brevioribus, ovariis stellato-

pilosis, stylis brevioribus, glabris inter alia.

Differs from *S. suaveolens* in smaller and narrower leaves, ovate sepals and much shorter androgynophore and gynophore, amongst others; from *S. scandens* in elliptic bracts, ovate sepals, larger number of stamens and shorter glabrous gynophore; from *S. ovata* in smaller bracts, ovate sepals, shorter androgynophore and gynophore, larger number of stamens, stellately hairy ovary and shorter glabrous style.

Climbing shrubs c. 15-20 m in height, profusely branching above, unarmed; stem terete, lenticellate. *Leaves* simple, alternate, congested on branchlets, 7.5-16.0 x 2.5-5.0 cm, elliptic-oblong, coriaceous, acute or shortly acuminate at apex, acute or obtuse at base, entire, glabrous, unicostate, reticulate; lamina profusely pustulate with bacterial nodules; lateral nerves 7-10 on either side, alternate or subopposite, arching obliquely towards the margin; midrib slightly sunken above, prominent, sometimes pustulate beneath. *Flowers* in axillary panicle or raceme, yellowish, sweetly scented, minutely pubescent; bracts caducous, c. 2.0 x 1.0 mm, elliptic, acute at apex, pubescent; pedicel 1.0-1.5 mm long, stout. Floral buds 4.0-4.5 x 3.0-4.0 mm, obovoid or spherical. *Sepals* 6 in two whorls, spreading, not reflexed at anthesis, imbricate, 3.0-3.5 x 2.5 mm, ovate, acute at apex, fulvous tomentose on both sides. *Petals* absent. Androgynophore c. 0.2 mm long, glabrous. *Stamens* more than 40; filaments c. 2 mm long, glabrous; gynophore c. 0.2 mm long, glabrous. *Ovary* c. 1.2 x 1.0 mm, ovoid, stellately hairy, 3-loculed, each bearing 2 ovules on axillary placenta; style c. 0.5 mm long; stigma 3-lobed. *Fruit* 2.5-3.1 x 1.2-1.6 cm ellipsoid, 3-angled; pericarp 2.5 mm thick, distinguished into thick epicarp, spongy meso-

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Fig. 1. *Stixis manipurensis* sp. nov.

A. Habit; B. Flower bud; C. Flower opened; D. Stamen; E. Gynoecium with androgynophore and gynophore.  
F. Placentation; G. Fruiting panicle.

carp and thin endocarp. *Seeds* one, large, embedded in the pulp with a thin testa; cotyledons large, unequal, one enclosing the other.

*Flowering*: April-August; *Fruiting*: July - ?

*Distribution*: Tengnoupul to Morey, frequently occurring along the trunk road, on forest slopes.

*Type*: Manipur State, Tengnoupul, 1500 m, 30.7.87, *D.B. Deb* 3549A holotype & B a fruiting panicle (detached from the type) deposited at CAL.

*Note*: Sundara Raghavan, R. has just published a new species from Burma (vide *Bull.*

*Bot. Sur. Ind.* 28: 191, 1988), which is very different from the one described here.

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### NEW TAXA OF DESMIDS FROM UTTARA KANNADA DISTRICT KARNATAKA STATE (INDIA)<sup>1</sup>

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(With four text-figures)

During 1978 in all 72 collections from freshwater permanent ponds and lakes of Uttarakannada District of Karnataka State were made. These samples contained four new taxa of Desmids which are described.

During an extensive survey of freshwater algae of Uttar Kannada District of Karnataka State, we came across four new taxa of Desmids. A total of 72 collections were made during 1978 from permanent ponds and lakes. All these samples are deposited in Department of Botany, Kittel Collge, Dharwad under the Accession No(s). : NK-1 to NK - 72.

**Cosmarium cuneatum** Josh. var. **truncatum** var. nov. (Fig. 1).

Simile typo descripto a Forster 1972 (Tab. 18, Fig. 14, p. 549) e quo differt sinu inaperto in latere interiore et leviter aperto ad latus exterius; margines laterales magis convergentes qui apicem truncatum formant; paries punctatus solum ad regionem verrucarum medianarum. Cellulis a vertice visis ellipticis, latera rectiora convergentia ut forment polos paene truncatos parietibus crassis. Cellulae 43-44 microns longae, 43-44 microns latae; Isthmus 7-8

microns latus, 25-26 microns crassus.

*Iconotypus* : Fig. 1.

*Distributio* : NK-70, Kumta.

Similar to the type described by Forster 1972 (pl.18, fig. 14, p. 549). Differs in having the sinus closed on inner side and slightly open towards exterior; lateral margins more convergent and form a truncate apex; Wall punctate only at the region of median verrucae. Vertical view elliptic, sides more straight, converging to form almost truncate and thick walled poles. Cells 43-44 microns long; 43-44 microns broad; Isthmus 7-8 microns broad; 25-26 microns thick.

*Iconotype* : Fig. 1.

*Distribution* : NK-70; Kumta.

**Cosmarium kanadense** sp. nov. (Fig. 2)

Cellulae leviter longiores quam latiores; semicellulae late semicirculares; margines laterales undulati et dentati; anguli basales spinis acutis crassisque praediti; sinus undulatus et latior prope partem exteriorem. Semicellulae annulum spinarum 12 subapicalium longiorum, quae acutae crassaeque sunt, ferentes; ornamentum centrale granula quattuor habet, tria in

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